



MWD SURVEY CERTIFICATION
Legacy Directional Drilling, LLC.

NM OIL CONSERVATION
ARTESIA DISTRICT

NOV 13 2018

RECEIVED

State Of New Mexico

County Of Eddy

30.015-44427

I, Mark L. Miller certify that; I am employed by Legacy Directional Drilling, LLC.;
that I did on the day(s) of June 29, 2018 through July 14, 2018 conduct
or supervise the taking of a MWD survey from a depth of 1,058 feet to a depth of
19,260 feet; that the data is true, correct, complete and within the limitations of the
tool set forth by Legacy Directional Drilling, LLC.; that I am authorized and qualified to make this report;
that this survey was conducted at the request of Devon Energy for the
Lusitano 27-34 FED COM 536H Well, A.P.I. No. 30-015-44427 in
Jennings, West/Bone Spring Field and that I have reviewed this report and find that
it conforms to the principles and procedures set forth by Legacy Directional Drilling, LLC.

Surveyor's Signature

MLWD Technical Director

Title



Directional Survey Report

Company Name: DEVON ENERGY PRODUCTION COMPANY State/Prov: NM

Survey Company: Legacy Directional

Proposed Azimuth: 179.85°

Well Name: LUSITANO 27-34 FED COM 536H

County: EDDY

Job Number: LF181020

Declination: 6.62°

Field: JENNINGS, WEST / BONE SPRING

Location: SEC 27 / T 25 S / R 31 E

Latitude: 32° 6' 26.51" N

North Reference: GRID

Rig ID: ICD 217

API/UWI: 30-015-44427

Longitude: 103° 45' 29.894" W

KB: 3362 FT

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
Tie-In	831	1.30	265.71	830.90	-2.44	-11.86	2.41	0.00	0.00	12.11	258.37	0
1	1058	1.77	283.08	1057.82	-1.84	-17.84	1.79	0.29	227.00	17.94	264.11	92.0
2	1151	1.92	309.64	1150.77	-0.52	-20.44	0.47	0.92	93.00	20.45	268.54	92.0
3	1244	2.57	330.96	1243.70	2.30	-22.65	-2.36	1.13	93.00	22.77	275.79	92.0
4	1337	3.37	339.08	1336.58	6.67	-24.64	-6.74	0.97	93.00	25.53	285.15	92.0
5	1430	4.20	335.38	1429.37	12.32	-27.04	-12.39	0.93	93.00	29.71	294.50	99.1
6	1523	4.70	339.02	1522.09	18.98	-29.82	-19.05	0.62	93.00	35.35	302.47	99.1
7	1615	5.44	334.56	1613.73	26.43	-33.04	-26.52	0.91	92.00	42.31	308.66	99.1
8	1709	6.07	336.41	1707.26	35.01	-36.95	-35.11	0.70	94.00	50.90	313.46	99.1
9	1802	7.03	331.17	1799.65	44.50	-41.66	-44.61	1.21	93.00	60.96	316.89	99.1
10	1897	6.67	327.60	1893.97	54.26	-47.42	-54.38	0.59	95.00	72.06	318.85	99.1
11	1991	6.89	327.10	1987.32	63.60	-53.40	-63.74	0.24	94.00	83.05	319.98	99.1
12	2085	6.71	320.14	2080.66	72.55	-59.99	-72.70	0.90	94.00	94.14	320.41	99.1
13	2178	6.37	315.39	2173.05	80.39	-67.09	-80.57	0.69	93.00	104.71	320.15	99.1
14	2272	6.00	316.24	2266.50	87.65	-74.15	-87.85	0.41	94.00	114.81	319.77	106.3
15	2367	5.99	314.55	2360.98	94.72	-81.12	-94.93	0.19	95.00	124.71	319.42	106.3
16	2462	6.34	309.66	2455.44	101.54	-88.69	-101.77	0.66	95.00	134.82	318.86	106.3
17	2556	6.28	308.22	2548.87	108.03	-96.72	-108.29	0.18	94.00	145.01	318.16	106.3
18	2651	6.02	309.03	2643.32	114.39	-104.68	-114.66	0.29	95.00	155.05	317.54	113.4
19	2746	5.50	313.88	2737.84	120.68	-111.83	-120.97	0.75	95.00	164.53	317.18	113.4
20	2841	5.38	314.55	2832.41	126.96	-118.28	-127.27	0.14	95.00	173.52	317.03	120.6
21	2936	5.73	309.52	2926.97	133.10	-125.12	-133.43	0.63	95.00	182.67	316.77	127.7
22	3031	5.96	306.12	3021.47	139.03	-132.76	-139.37	0.44	95.00	192.23	316.32	127.7
23	3126	6.03	312.94	3115.95	145.33	-140.39	-145.70	0.75	95.00	202.07	315.99	120.6
24	3221	6.11	315.82	3210.42	152.36	-147.57	-152.74	0.33	95.00	212.11	315.91	127.7
25	3316	5.93	307.47	3304.90	158.97	-154.99	-159.37	0.94	95.00	222.02	315.73	127.7
26	3411	5.93	300.73	3399.39	164.46	-163.10	-164.89	0.73	95.00	231.63	315.24	127.7
27	3505	6.01	297.45	3492.88	169.21	-171.64	-169.66	0.37	94.00	241.03	314.59	134.9
28	3600	5.26	295.38	3587.42	173.37	-179.99	-173.84	0.82	95.00	249.91	313.93	134.9
29	3695	4.85	302.48	3682.06	177.39	-187.31	-177.88	0.79	95.00	257.98	313.44	134.9
30	3790	4.49	308.27	3776.74	181.85	-193.62	-182.36	0.62	95.00	265.63	313.20	134.9
31	3884	4.32	307.57	3870.46	186.29	-199.32	-186.81	0.19	94.00	272.82	313.07	134.9
32	3979	4.67	311.04	3965.17	191.01	-205.07	-191.55	0.47	95.00	280.25	312.97	134.9
33	4074	5.17	311.63	4059.82	196.40	-211.19	-196.95	0.53	95.00	288.39	312.92	134.9

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
34	4168	5.50	314.21	4153.41	202.35	-217.58	-202.92	0.43	94.00	297.13	312.92	134.9
35	4263	6.22	318.03	4247.92	209.35	-224.28	-209.94	0.86	95.00	306.81	313.03	134.9
36	4357	6.69	319.38	4341.32	217.29	-231.26	-217.90	0.53	94.00	317.33	313.22	134.9
37	4450	7.10	317.32	4433.65	225.63	-238.68	-226.25	0.51	93.00	328.45	313.39	113.4
38	4544	6.68	316.94	4526.97	233.90	-246.35	-234.54	0.45	94.00	339.70	313.51	113.4
39	4639	7.39	311.17	4621.25	241.95	-254.72	-242.62	1.05	95.00	351.32	313.53	113.4
40	4734	7.53	311.19	4715.45	250.08	-264.00	-250.77	0.15	95.00	363.64	313.45	120.6
41	4829	7.00	313.57	4809.69	258.17	-272.88	-258.88	0.64	95.00	375.65	313.41	120.6
42	4924	6.79	313.11	4904.00	265.99	-281.18	-266.73	0.23	95.00	387.06	313.41	120.6
43	5019	6.88	311.48	4998.32	273.60	-289.54	-274.36	0.23	95.00	398.36	313.38	120.6
44	5113	6.90	309.89	5091.65	280.95	-298.09	-281.73	0.20	94.00	409.62	313.30	120.6
45	5208	6.96	309.24	5185.95	288.25	-306.93	-289.05	0.10	95.00	421.06	313.20	120.6
46	5303	6.77	307.64	5280.27	295.31	-315.82	-296.14	0.28	95.00	432.38	313.08	120.6
47	5398	6.23	304.70	5374.66	301.67	-324.49	-302.51	0.67	95.00	443.05	312.91	120.6
48	5493	6.78	312.61	5469.05	308.40	-332.86	-309.27	1.11	95.00	453.76	312.82	127.7
49	5588	7.01	311.74	5563.36	316.05	-341.31	-316.94	0.27	95.00	465.17	312.80	127.7
50	5683	6.16	320.75	5657.74	323.86	-348.86	-324.77	1.41	95.00	476.01	312.87	127.7
51	5778	6.12	318.72	5752.19	331.61	-355.43	-332.54	0.23	95.00	486.10	313.01	127.7
52	5873	5.87	316.60	5846.67	338.95	-362.10	-339.89	0.35	95.00	495.99	313.11	127.7
53	5968	6.02	313.84	5941.16	345.93	-369.03	-346.89	0.34	95.00	505.82	313.15	127.7
54	6063	5.49	310.87	6035.68	352.35	-376.06	-353.33	0.64	95.00	515.34	313.14	127.7
55	6158	5.76	320.45	6130.23	359.00	-382.54	-360.00	1.03	95.00	524.61	313.18	127.7
56	6253	5.71	319.11	6224.75	366.25	-388.67	-367.27	0.15	95.00	534.04	313.30	127.7
57	6348	5.59	319.50	6319.29	373.34	-394.76	-374.37	0.13	95.00	543.34	313.40	127.7
58	6442	5.22	317.91	6412.87	380.00	-400.60	-381.04	0.42	94.00	552.16	313.49	127.7
59	6537	4.86	317.06	6507.51	386.15	-406.24	-387.21	0.39	95.00	560.48	313.55	127.7
60	6631	5.02	316.98	6601.16	392.07	-411.76	-393.15	0.17	94.00	568.56	313.60	134.9
61	6725	3.09	315.09	6694.92	396.87	-416.36	-397.96	2.06	94.00	575.20	313.63	134.9
62	6820	2.67	311.24	6789.80	400.14	-419.83	-401.24	0.49	95.00	579.97	313.62	134.9
63	6915	2.14	306.34	6884.71	402.65	-422.92	-403.76	0.60	95.00	583.94	313.59	134.9
64	7010	1.81	297.53	6979.66	404.40	-425.68	-405.51	0.47	95.00	587.15	313.53	134.9
65	7105	1.67	343.02	7074.62	406.42	-427.41	-407.53	1.42	95.00	589.79	313.56	134.9
66	7200	1.44	331.17	7169.58	408.79	-428.39	-409.91	0.41	95.00	592.14	313.66	134.9
67	7295	1.08	321.01	7264.56	410.53	-429.53	-411.65	0.44	95.00	594.16	313.70	134.9
68	7389	0.94	308.04	7358.54	411.69	-430.70	-412.82	0.28	94.00	595.81	313.71	134.9
69	7484	0.80	286.28	7453.53	412.36	-431.95	-413.49	0.37	95.00	597.17	313.67	134.9
70	7578	0.48	263.83	7547.53	412.50	-432.97	-413.63	0.43	94.00	598.01	313.61	134.9
71	7673	0.14	234.58	7642.53	412.39	-433.46	-413.52	0.38	95.00	598.29	313.57	142.0
72	7768	0.24	187.36	7737.53	412.12	-433.58	-413.26	0.19	95.00	598.19	313.55	134.9

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
73	7862	0.49	171.48	7831.52	411.53	-433.54	-412.66	0.28	94.00	597.76	313.51	142.0
74	7957	0.14	81.59	7926.52	411.15	-433.37	-412.28	0.54	95.00	597.37	313.49	142.0
75	8052	0.20	145.51	8021.52	411.03	-433.16	-412.16	0.20	95.00	597.14	313.50	142.0
76	8147	0.48	172.43	8116.52	410.50	-433.01	-411.63	0.33	95.00	596.66	313.47	142.0
77	8241	0.66	178.16	8210.52	409.56	-432.95	-410.70	0.20	94.00	595.97	313.41	142.0
78	8336	0.75	334.82	8305.51	409.58	-433.19	-410.71	1.45	95.00	596.16	313.40	142.0
79	8431	0.64	314.98	8400.51	410.52	-433.83	-411.65	0.28	95.00	597.27	313.42	142.0
80	8493	0.51	290.60	8462.50	410.86	-434.34	-411.99	0.44	62.00	597.87	313.41	142.0
81	8533	0.67	286.41	8502.50	410.99	-434.73	-412.12	0.41	40.00	598.25	313.39	127.7
82	8558	1.63	219.40	8527.50	410.75	-435.09	-411.89	6.00	25.00	598.35	313.35	127.7
83	8627	9.12	190.16	8596.15	404.60	-436.68	-405.75	11.22	69.00	595.31	312.82	127.7
84	8722	20.58	186.31	8687.83	380.52	-439.86	-381.67	12.10	95.00	581.61	310.86	134.9
85	8817	30.78	176.77	8773.37	339.53	-440.32	-340.68	11.55	95.00	556.02	307.64	134.9
86	8912	39.98	179.47	8850.74	284.62	-438.67	-285.76	9.82	95.00	522.91	302.98	134.9
87	9007	47.69	178.77	8919.22	218.88	-437.63	-220.03	8.13	95.00	489.31	296.57	134.9
88	9102	54.43	184.99	8978.93	145.14	-440.24	-146.29	8.73	95.00	463.55	288.25	134.9
89	9197	60.58	188.01	9029.95	65.59	-449.38	-66.77	7.01	95.00	454.14	278.30	134.9
90	9291	73.17	180.59	9066.84	-20.38	-455.58	19.19	15.22	94.00	456.03	267.44	134.9
91	9385	81.70	178.64	9087.27	-112.04	-454.94	110.85	9.30	94.00	468.53	256.17	142.0
92	9480	86.75	179.25	9096.83	-206.51	-453.20	205.32	5.35	95.00	498.03	245.50	142.0
93	9528	88.21	179.54	9098.94	-254.46	-452.69	253.27	3.10	48.00	519.31	240.66	134.9
94	9573	90.59	178.97	9099.41	-299.45	-452.11	298.26	5.44	45.00	542.28	236.48	127.7
95	9624	91.15	178.90	9098.63	-350.43	-451.16	349.25	1.11	51.00	571.27	232.16	134.9
96	9719	90.03	178.49	9097.65	-445.40	-449.00	444.22	1.26	95.00	632.44	225.23	134.9
97	9814	90.06	178.27	9097.58	-540.36	-446.31	539.19	0.23	95.00	700.85	219.55	134.9
98	9909	89.55	178.19	9097.90	-635.32	-443.38	634.15	0.54	95.00	774.73	214.91	142.0
99	10004	91.12	179.66	9097.35	-730.29	-441.59	729.13	2.26	95.00	853.42	211.16	134.9
100	10098	90.73	179.42	9095.83	-824.28	-440.84	823.12	0.49	94.00	934.76	208.14	142.0
101	10193	91.09	180.32	9094.32	-919.26	-440.62	918.11	1.02	95.00	1019.41	205.61	142.0
102	10288	90.95	180.11	9092.63	-1014.25	-440.98	1013.09	0.27	95.00	1105.97	203.50	149.1
103	10382	91.04	180.28	9091.00	-1108.23	-441.30	1107.07	0.20	94.00	1192.86	201.71	149.1
104	10477	91.15	180.54	9089.18	-1203.21	-441.98	1202.05	0.30	95.00	1281.82	200.17	149.1
105	10572	91.79	181.12	9086.75	-1298.17	-443.35	1297.01	0.91	95.00	1371.79	198.86	149.1
106	10666	89.50	180.85	9085.69	-1392.15	-444.97	1390.98	2.45	94.00	1461.53	197.73	149.1
107	10761	90.67	181.58	9085.55	-1487.12	-446.98	1485.95	1.45	95.00	1552.84	196.73	149.1
108	10853	89.55	180.43	9085.37	-1579.10	-448.60	1577.92	1.74	92.00	1641.59	195.86	149.1
109	10944	89.50	180.19	9086.12	-1670.10	-449.09	1668.92	0.27	91.00	1729.43	195.05	149.1
110	11036	88.96	179.66	9087.36	-1762.09	-448.97	1760.91	0.82	92.00	1818.39	194.29	156.3
111	11127	90.36	179.22	9087.90	-1853.08	-448.08	1851.90	1.61	91.00	1906.49	193.59	156.3

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
112	11219	91.40	178.79	9086.49	-1945.06	-446.48	1943.88	1.22	92.00	1995.64	192.93	156.3
113	11311	91.20	178.40	9084.40	-2037.00	-444.23	2035.83	0.48	92.00	2084.88	192.30	156.3
114	11403	92.05	178.84	9081.79	-2128.94	-442.01	2127.77	1.04	92.00	2174.34	191.73	156.3
115	11494	91.29	179.32	9079.14	-2219.89	-440.55	2218.73	0.99	91.00	2263.18	191.22	156.3
116	11587	90.50	179.09	9077.69	-2312.87	-439.26	2311.71	0.88	93.00	2354.21	190.75	156.3
117	11680	90.25	179.15	9077.08	-2405.85	-437.83	2404.70	0.28	93.00	2445.37	190.31	156.3
118	11773	90.03	179.41	9076.85	-2498.85	-436.67	2497.69	0.37	93.00	2536.71	189.91	156.3
119	11866	90.70	179.34	9076.26	-2591.84	-435.65	2590.69	0.72	93.00	2628.20	189.54	156.3
120	11959	89.92	178.83	9075.75	-2684.82	-434.17	2683.68	1.00	93.00	2719.70	189.19	156.3
121	12051	91.23	178.84	9074.83	-2776.80	-432.30	2775.66	1.42	92.00	2810.25	188.85	156.3
122	12144	91.60	180.00	9072.54	-2869.76	-431.35	2868.62	1.31	93.00	2902.00	188.55	156.3
123	12239	90.56	180.49	9070.74	-2964.74	-431.76	2963.60	1.21	95.00	2996.02	188.29	156.3
124	12334	90.28	180.15	9070.05	-3059.74	-432.29	3058.60	0.46	95.00	3090.13	188.04	156.3
125	12429	90.31	179.99	9069.56	-3154.74	-432.41	3153.60	0.17	95.00	3184.23	187.80	163.4
126	12523	90.11	180.32	9069.21	-3248.74	-432.66	3247.59	0.41	94.00	3277.42	187.59	163.4
127	12617	90.42	180.69	9068.78	-3342.73	-433.49	3341.59	0.51	94.00	3370.72	187.39	163.4
128	12712	90.64	180.75	9067.90	-3437.72	-434.68	3436.57	0.24	95.00	3465.09	187.21	163.4
129	12807	91.09	180.98	9066.47	-3532.70	-436.12	3531.54	0.53	95.00	3559.52	187.04	163.4
130	12901	91.09	181.07	9064.68	-3626.67	-437.80	3625.51	0.10	94.00	3653.00	186.88	163.4
131	12996	91.51	181.09	9062.52	-3721.63	-439.59	3720.46	0.44	95.00	3747.50	186.74	163.4
132	13091	91.09	180.37	9060.37	-3816.59	-440.80	3815.43	0.88	95.00	3841.96	186.59	163.4
133	13185	90.92	179.79	9058.72	-3910.58	-440.93	3909.41	0.64	94.00	3935.36	186.43	163.4
134	13280	89.72	178.89	9058.19	-4005.57	-439.84	4004.40	1.58	95.00	4029.64	186.27	163.4
135	13375	89.66	178.84	9058.70	-4100.55	-437.95	4099.39	0.08	95.00	4123.87	186.10	163.4
136	13470	89.89	179.62	9059.08	-4195.54	-436.68	4194.38	0.86	95.00	4218.20	185.94	163.4
137	13565	89.64	179.28	9059.47	-4290.53	-435.77	4289.38	0.44	95.00	4312.60	185.80	170.6
138	13659	89.47	178.43	9060.20	-4384.51	-433.89	4383.36	0.92	94.00	4405.93	185.65	170.6
139	13754	90.62	178.69	9060.12	-4479.48	-431.50	4478.33	1.24	95.00	4500.21	185.50	163.4
140	13849	90.95	178.03	9058.82	-4574.43	-428.78	4573.29	0.78	95.00	4594.48	185.35	170.6
141	13944	91.40	180.26	9056.87	-4669.39	-427.36	4668.26	2.39	95.00	4688.91	185.23	163.4
142	14039	91.71	180.59	9054.29	-4764.35	-428.07	4763.22	0.48	95.00	4783.55	185.13	170.6
143	14134	90.90	180.86	9052.13	-4859.32	-429.27	4858.18	0.90	95.00	4878.24	185.05	163.4
144	14229	90.78	181.12	9050.74	-4954.30	-430.91	4953.15	0.30	95.00	4973.00	184.97	170.6
145	14324	89.47	181.07	9050.53	-5049.28	-432.73	5048.13	1.38	95.00	5067.79	184.90	170.6
146	14418	89.55	180.62	9051.33	-5143.26	-434.11	5142.11	0.49	94.00	5161.55	184.82	170.6
147	14513	89.94	181.36	9051.76	-5238.25	-435.76	5237.09	0.88	95.00	5256.34	184.76	170.6
148	14608	89.61	181.31	9052.13	-5333.22	-437.97	5332.06	0.35	95.00	5351.17	184.69	170.6
149	14702	89.78	181.42	9052.63	-5427.19	-440.21	5426.02	0.22	94.00	5445.02	184.64	170.6
150	14797	89.66	179.82	9053.09	-5522.18	-441.24	5521.01	1.69	95.00	5539.78	184.57	170.6

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
151	14892	90.53	178.26	9052.94	-5617.16	-439.64	5615.99	1.88	95.00	5634.34	184.48	170.6
152	14987	90.78	178.06	9051.85	-5712.11	-436.59	5710.95	0.34	95.00	5728.77	184.37	170.6
153	15082	91.35	179.34	9050.08	-5807.07	-434.44	5805.91	1.47	95.00	5823.29	184.28	170.6
154	15176	90.03	178.42	9048.95	-5901.04	-432.60	5899.89	1.71	94.00	5916.87	184.19	170.6
155	15271	90.28	178.31	9048.70	-5996.00	-429.89	5994.85	0.29	95.00	6011.39	184.10	170.6
156	15366	90.39	179.17	9048.14	-6090.97	-427.80	6089.83	0.91	95.00	6105.98	184.02	163.4
157	15461	91.99	181.37	9046.17	-6185.94	-428.25	6184.80	2.86	95.00	6200.75	183.96	170.6
158	15556	90.42	181.79	9044.17	-6280.88	-430.87	6279.73	1.71	95.00	6295.64	183.92	170.6
159	15650	90.76	181.76	9043.20	-6374.83	-433.78	6373.68	0.36	94.00	6389.57	183.89	170.6
160	15745	90.50	180.21	9042.16	-6469.81	-435.41	6468.65	1.65	95.00	6484.45	183.85	170.6
161	15840	90.64	180.19	9041.21	-6564.80	-435.74	6563.64	0.15	95.00	6579.25	183.80	170.6
162	15935	91.23	180.67	9039.66	-6659.79	-436.46	6658.62	0.80	95.00	6674.08	183.75	170.6
163	16030	90.84	179.85	9037.95	-6754.77	-436.89	6753.60	0.96	95.00	6768.89	183.70	170.6
164	16125	90.95	180.12	9036.46	-6849.76	-436.86	6848.59	0.31	95.00	6863.68	183.65	170.6
165	16219	91.09	180.00	9034.79	-6943.74	-436.96	6942.58	0.20	94.00	6957.48	183.60	170.6
166	16314	90.98	179.50	9033.07	-7038.73	-436.55	7037.56	0.54	95.00	7052.25	183.55	170.6
167	16409	90.67	179.09	9031.70	-7133.71	-435.38	7132.55	0.54	95.00	7146.98	183.49	170.6
168	16504	90.64	179.02	9030.62	-7228.69	-433.81	7227.53	0.08	95.00	7241.70	183.43	170.6
169	16599	90.78	178.94	9029.44	-7323.67	-432.12	7322.51	0.17	95.00	7336.41	183.38	177.7
170	16694	91.71	178.89	9027.38	-7418.63	-430.32	7417.48	0.98	95.00	7431.10	183.32	177.7
171	16788	89.89	179.34	9026.06	-7512.60	-428.87	7511.46	1.99	94.00	7524.84	183.27	170.6
172	16884	89.92	179.83	9026.22	-7608.60	-428.17	7607.45	0.51	96.00	7620.64	183.22	170.6
173	16979	90.11	180.41	9026.20	-7703.60	-428.37	7702.45	0.64	95.00	7715.50	183.18	170.6
174	17073	89.89	181.28	9026.20	-7797.59	-429.76	7796.44	0.95	94.00	7809.42	183.15	177.7
175	17168	90.31	180.86	9026.03	-7892.57	-431.53	7891.42	0.63	95.00	7904.36	183.13	170.6
176	17263	90.76	179.74	9025.15	-7987.56	-432.03	7986.41	1.27	95.00	7999.24	183.10	170.6
177	17357	88.82	178.17	9025.49	-8081.54	-430.32	8080.39	2.65	94.00	8092.99	183.05	170.6
178	17451	87.79	177.83	9028.27	-8175.44	-427.04	8174.30	1.15	94.00	8186.59	182.99	177.7
179	17546	88.91	178.21	9031.01	-8270.34	-423.76	8269.21	1.24	95.00	8281.19	182.93	177.7
180	17640	90.53	178.69	9031.47	-8364.30	-421.22	8363.17	1.80	94.00	8374.90	182.88	170.6
181	17735	91.18	179.19	9030.05	-8459.28	-419.46	8458.15	0.86	95.00	8469.67	182.84	177.7
182	17830	91.71	179.50	9027.65	-8554.24	-418.37	8553.12	0.65	95.00	8564.47	182.80	177.7
183	17924	91.65	179.27	9024.90	-8648.19	-417.36	8647.07	0.25	94.00	8658.26	182.76	177.7
184	18019	92.30	179.64	9021.62	-8743.13	-416.46	8742.01	0.79	95.00	8753.05	182.73	177.7
185	18114	91.49	180.11	9018.48	-8838.08	-416.25	8836.96	0.99	95.00	8847.88	182.70	177.7
186	18209	90.06	180.34	9017.20	-8933.07	-416.63	8931.95	1.52	95.00	8942.78	182.67	170.6
187	18303	90.64	180.68	9016.62	-9027.06	-417.46	9025.94	0.72	94.00	9036.71	182.65	170.6
188	18398	90.08	180.70	9016.02	-9122.05	-418.61	9120.93	0.59	95.00	9131.65	182.63	170.6
189	18492	89.72	180.69	9016.19	-9216.05	-419.75	9214.91	0.38	94.00	9225.60	182.61	170.6

Svy	Depth	Inc	Azm	TVD	NS	EW	VS	DLS	CL	CD	CA	Temp
190	18587	90.03	180.91	9016.40	-9311.04	-421.07	9309.90	0.40	95.00	9320.55	182.59	170.6
191	18682	89.78	180.78	9016.55	-9406.03	-422.47	9404.89	0.30	95.00	9415.51	182.57	170.6
192	18777	90.50	181.11	9016.32	-9501.01	-424.04	9499.87	0.83	95.00	9510.47	182.56	170.6
193	18872	90.70	181.14	9015.33	-9595.99	-425.91	9594.84	0.21	95.00	9605.43	182.54	170.6
194	18967	90.76	181.56	9014.12	-9690.95	-428.14	9689.80	0.45	95.00	9700.41	182.53	177.7
195	19062	91.12	182.11	9012.56	-9785.89	-431.19	9784.73	0.69	95.00	9795.39	182.52	177.7
196	19156	92.19	182.65	9009.84	-9879.77	-435.09	9878.60	1.27	94.00	9889.34	182.52	
197	19199	91.19	182.65	9008.58	-9922.70	-437.08	9921.53	2.33	43.00	9932.33	182.52	
PTB	19260	91.19	182.65	9007.31	-9983.63	-439.89	9982.47	0.00	61.00	9993.32	182.52	0.0